

Division of Traffic Operations

Robert Peterson, Acting Asst. Div. Chief

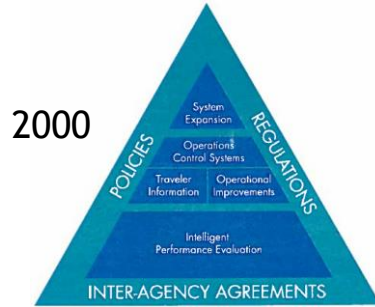
Matt Friedman, Branch Chief, Asset Management

<http://traffic.onramp.dot.ca.gov>

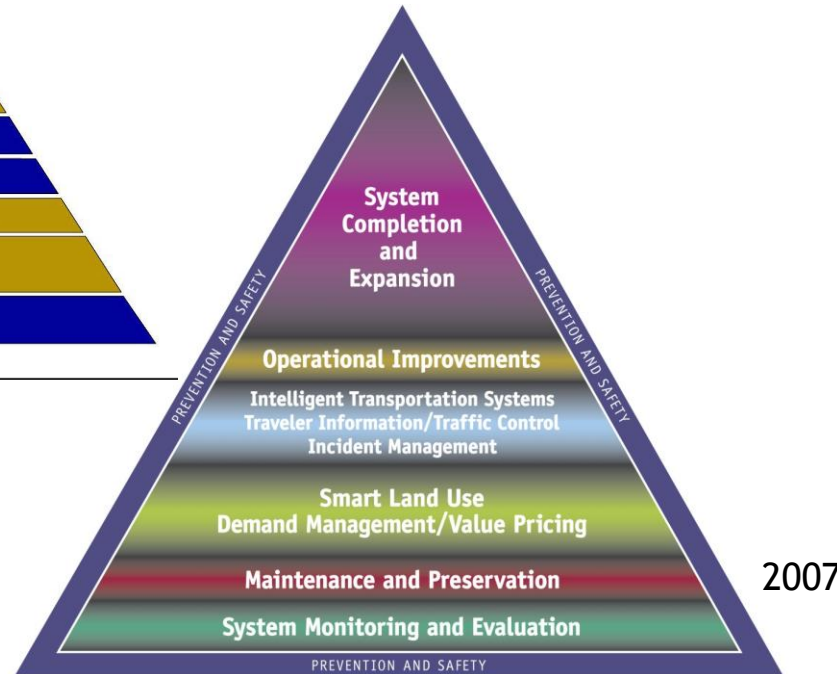
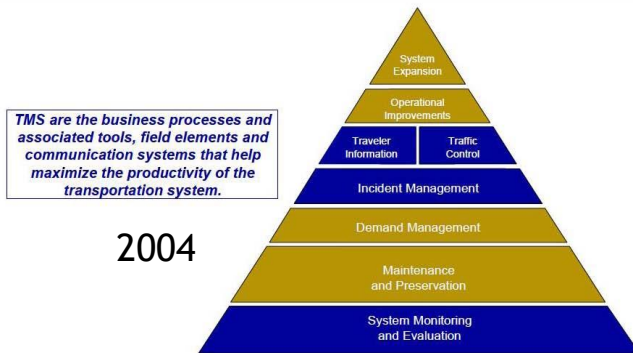
Traffic Operations

► What do you think we do?

Planning & Operations Coordination: Strategic Growth Plan / CMIA Legacy



**Governor Arnold Schwarzenegger's Strategic Growth Plan:
Transportation Investments for Mobility and Quality of Life**



**Transportation Investments have more
impact if built upon this foundation**

Transportation 2017

- ▶ “The thing is, we can’t build our way out of congestion...” Matt Rocco, Caltrans Public Affairs Chief, April 2016

Congestion

- ▶ Recurrent: Congestion that occurs routinely due to high traffic volumes.
- ▶ Non-Recurrent: Congestion that is caused by incidents such as collisions, construction or emergencies.

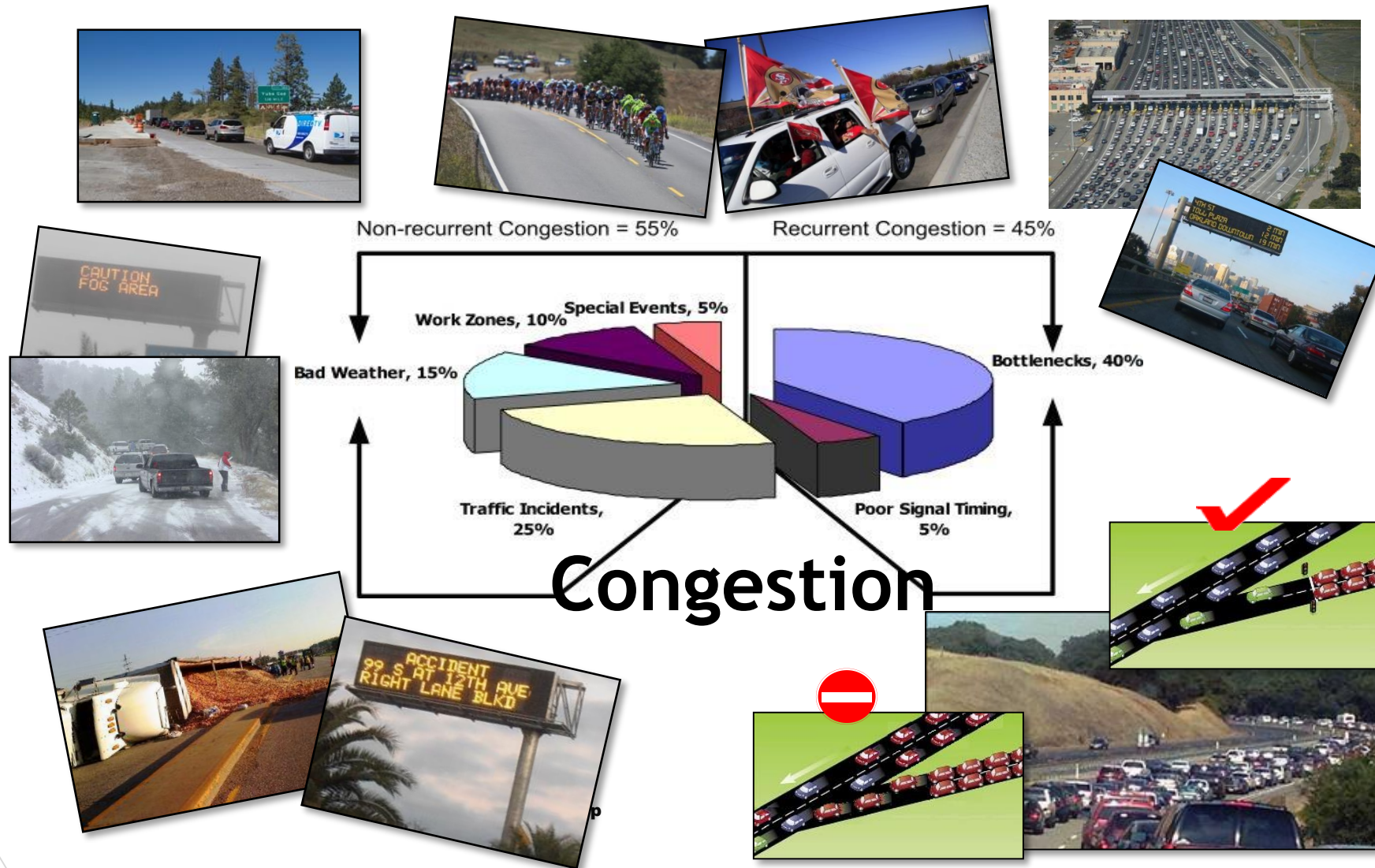
Assessing and Analyzing Congestion

- ▶ Traffic counts using vehicle detection stations (VDS) and traffic counts (ADT).
- ▶ Visual observation via CCTV.
- ▶ Real time data through VDS.
- ▶ Crowd sourced data such as WAZE.
- ▶ Assessing incidents and trends using the Performance Measurement System (PeMS).
- ▶ Assessing known problem locations by completing Traffic Investigations based on:
 - ▶ Monitored sources (TASAS Table C)
 - ▶ Non-monitored sources (legislative, professional or citizen inquiries.)

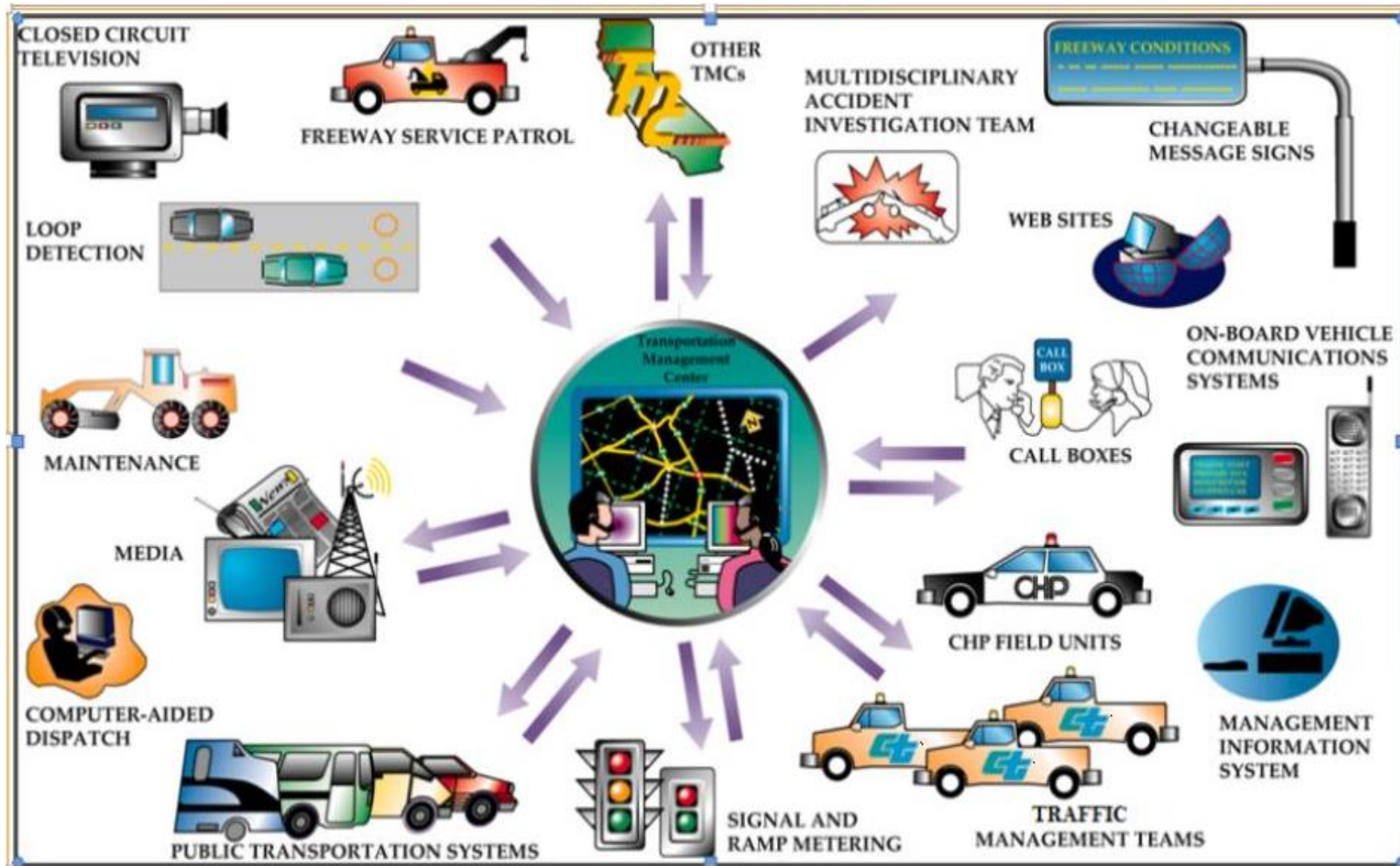
Solutions

- ▶ Traffic Demand Management and System Management
- ▶ Intelligent Transportation System (ITS)
- ▶ Ramp meters (2853 statewide)
 - ▶ Travel time reduction (33% delay reduction in congested urban corridors- studies in CA, MN and UT)
 - ▶ Collision reduction
 - ▶ Through put increase
 - ▶ Decreased emissions
- ▶ Freeway Service Patrol (FSP)
 - ▶ Reduced incident clearance time
 - ▶ Reduced incident recovery time

TMC is the nerve center for incident response and managing congestion caused by incidents



TMC Information Flow



Solutions

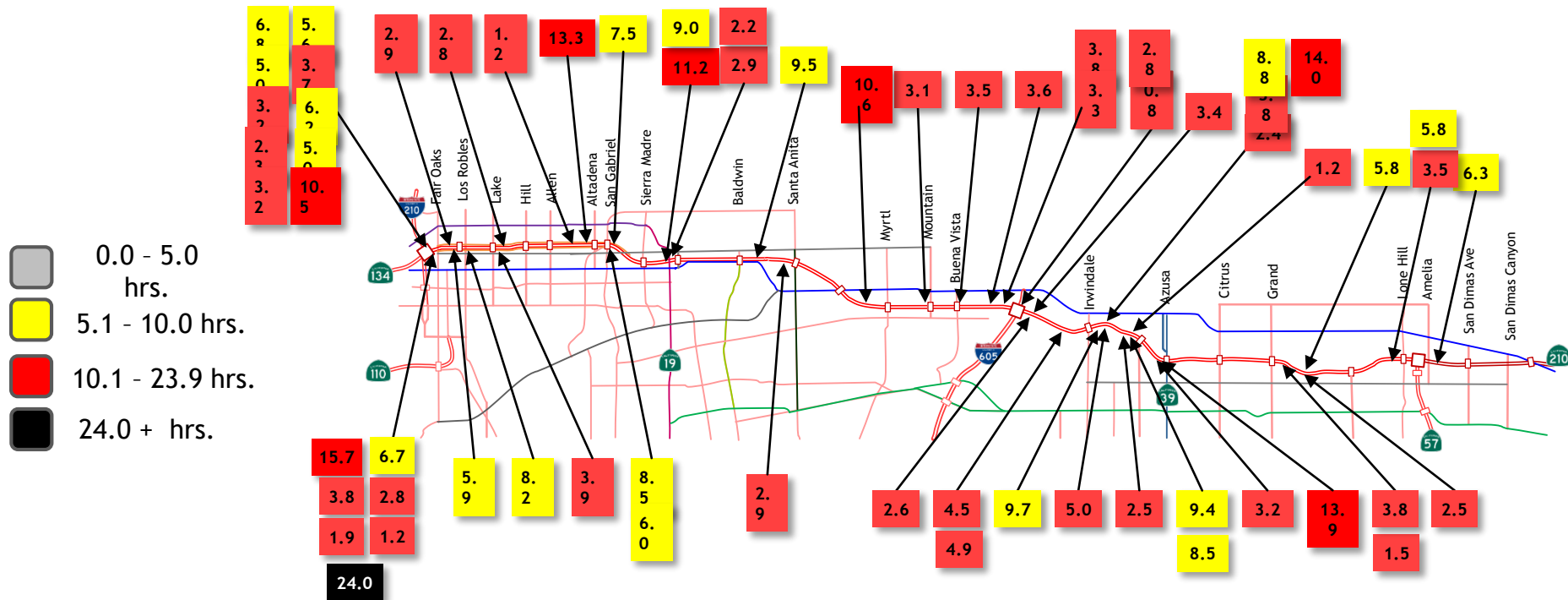
- Traveler information
 - Changeable Message Signs- CMS (2821 statewide)
 - Caltrans Quickmap- On-line and app
 - Caltrans partnership with WAZE
 - 511
 - Road Weather Information System- RWIS (142 statewide)
 - Highway Advisory Radio- HAR (188 statewide)

Solutions

- ▶ Traffic Signal Synchronization
- ▶ Complete Streets
- ▶ Planning for Operations (Erik Alm, DOTP lead)
- ▶ Corridor Management
 - ▶ I-80 SMART Corridor
 - ▶ I-210
 - ▶ Integration with parallel facilities
 - ▶ Multi-modal coordination and integration.

Major Incidents on I-210 (2009 - 2013)

12



- In 2013 a total of approximately 6,000 incidents were reported within the project limits. (500 per month)

Traffic Operations Exercise

- ▶ Meet with table group and analyze transportation challenges and opportunities
 - ▶ Considerations
 - ▶ Major activity centers and movement patterns
 - ▶ Existing facilities
 - ▶ Likely points of congestion
 - ▶ Existing facility gaps
 - ▶ Possible strategies
 - ▶ Others?
 - ▶ Brief report to class regarding findings and recommendations



Synergy Between Planning and Traffic Operations

- ▶ Adherence to FAST Act
- ▶ Programming “Fix it First”
- ▶ System Management- Working with what we have
- ▶ Planning for Operations
- ▶ Local Development Intergovernmental Review
- ▶ SB 1
- ▶ Pre-PID activities

Offices within Traffic Operations

- ▶ Performance
- ▶ Traffic Engineering
- ▶ Traffic Management
- ▶ Strategic Management
- ▶ Technology
- ▶ Outdoor Advertising
- ▶ Encroachment Permits and Engineering Support
- ▶ Commercial Vehicle Operations

Office of Performance

Thomas Schriber, Office Chief

- ▶ Asset Management Branch
 - ▶ Transportation Management System element database
 - ▶ Photolog, GIS
- ▶ Highway Safety and Operations Improvement Branch
 - ▶ Advises SHOPP Safety, Mobility and ITS (Ramp Meters, CCTV, CMS's, etc)
- ▶ Traffic Data Branch
 - ▶ Collects traffic and truck AADT
- ▶ Strategic Highway Safety Plan

Office of Traffic Engineering

▶ Traffic Investigations

- ▶ Establish policies and procedures for Traffic Investigations. Provides recommendations that often become SHOPP projects.

▶ Pedestrian and Bicycle Safety

- ▶ Provide technical expertise and support for pedestrian/bicycle safety programs and initiatives. Significant involvement with Complete Streets implementation.

▶ Traffic Safety Devices

- ▶ Establish policies and procedures for traffic safety systems, including barriers, guardrail, crash attenuators, and end treatments

▶ Traffic Control Devices

- ▶ Establishes policies and procedures for traffic control devices, including signs, markings, and traffic signals.

▶ Electrical Systems

- ▶ Establishes policy and procedures for electrical systems, including ITS.



Office of Traffic Management

- ▶ Traffic Demand Management
- ▶ Managed Lanes
- ▶ Transportation Management Center (TMC)
- ▶ Traffic Signal Operations
- ▶ HQ Communication Center
- ▶ Traffic Incident Management

Office of Strategic Management

Nick Compin, Office Chief

- ▶ Local Development\ Inter-Governmental Review
- ▶ Provide independent quality assurance before and after policy coordination.
- ▶ Implement active traffic management.
- ▶ Coordinate corridor management concept development.
- ▶ Provide traffic modeling support and system management decision support system development.
- ▶ Conduct statewide FHWA Capability Maturity Model assessment.
- ▶ Operate and maintain Performance Measurement System (PeMS)
- ▶ ITS statewide architecture documentation

Office of Technology

Stan Slavin, Office Chief

- ▶ Development and support of Intelligent Transportation Systems (ITS)
- ▶ Field Systems
 - ▶ Develops and supports field controller programs for traffic signals, changeable message signs, ramp meters, and associated remote monitoring and configuration software programs.
- ▶ Transportation Management Systems (TMS) Engineering and Support
- ▶ Develops and supports the central ITS systems located at TMCs.
- ▶ Transportation Electrical Equipment
 - ▶ Establishes and maintains specifications and ensures supply chain for all Department furnished traffic electrical and electronic ITS equipment
- ▶ Specialty Engineering
 - ▶ Provides leadership, standards, and systems engineering services for ITS projects and initiatives.

Office of Outdoor Advertising

James Arvis, Acting Office Chief

- ▶ Responsible for the regulation of outdoor advertising displays adjacent to and visible from primary highways, freeways, and Interstates.
 - ▶ Process outdoor advertising permit applications and permit renewals.
 - ▶ Routinely surveying the state to confirm the status of outdoor advertising displays.
 - ▶ Issue citations to companies with advertising displays in violation of the Outdoor Advertising Act.

Office of Encroachment Permits and Engineering Support

Yin-Ping li, Office Chief

► Encroachment Permits

- Establishes policies and guidelines for issuance of encroachment permits and storm water regulatory compliance
- Updates the Encroachment Permits Manual, and conducts statewide training workshops.

► Technical Training

- Provides a technical training program, facilitation and coordination of workshops and academies.

► Legal Liaison

- Supports the Legal Division by creating an inventory of the Division's historical decision making documents and assisting in the preparation of staff for depositions and court appearances.

Office of Commercial Vehicle Operations

Kien Le, Office Chief

- ▶ **Transportation Permits Policies and Compliance**
 - ▶ Updating Procedures and Guidance
 - ▶ Enforcing the Compliance Program
 - ▶ Performing Equipment Inspections
- ▶ **Issue Transportation Permits**
- ▶ **Legal Truck Access**
 - ▶ Policy and Procedures for determining California Legal and STAA Truck and 45 foot bus access criteria
- ▶ **SHOPP Program Advisor for Truck Weigh Stations**